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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,262	11/02/2001	David Walter Edmunds	1028-004US01	4492

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SHUMAKER & SIEFFERT, P.A.
8425 Seasons Parkway
Suite 105
St. Paul, MN 55125

EXAMINER

NGUYEN, CINDY

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 01/12/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/016,262

Applicant(s)

EDMUNDS ET AL.

Examiner

Cindy Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This is in response to application filed on November 02, 2001 in which claims 1-4 are presented for examination.

1. *Information Disclosure Statement*

The information disclosure statement filed on 05/20/02 and 04/22/03 are in compliance with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. Because it has been placed in the application file, and the information referred to therein has been considered as to the merits.

2. *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pouschine et al. (U.S 5918232) (Pouschine) in view of Harris et al. (U.S 5276607) (Harris) provided by Applicant.

Regarding claims 1, 3 and 4, Pouschine discloses: a method, a system and a computer program product for the calculation and back-solving of complex relationships in a sub-cube of a multidimensional database system comprising the steps of:

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inputting from a user the required values of specified cells and any constraints (col. 16, lines 64 to col. 17, lines 10, Pouschine);

creating one or more parent/child tables giving the relationships (col. 14, lines 34-63, Pouschine) and dependencies between target cells and other cells in the sub-cube (col. 15, lines 1-20, Pouschine);

determining from the one or more parent/child tables the one or more target cells requiring one or more calculations to be performed (col. 13, lines 51-67, Pouschine);

for each target cell requiring calculations:

performing the one or more calculations (col. 23, lines 55-64, Pouschine) and recording that a change has taken place;

However, Pouschine didn't disclose: remembering the one or more parent cells of the target cell to ensure they are recalculated; recalculating the values for each remembered parent cell and recording that a change has taken place; repeating the performing, remembering, and recalculating steps until all changes to the target cells and their parent cells are complete; repeating the performing, remembering, recalculating, and first repeating steps until no changes are recorded; and reporting the results of the foregoing steps to the user. On the other hand, Harris discloses: remembering the one or more parent cells of the target cell to ensure they are recalculated (col. 5, lines 65 to col. 7, lines 38, Harris); recalculating the values for each remembered parent cell and recording that a change has taken place (col. 5, lines 65 to col. 7, lines 38, Harris); repeating the performing, remembering, and recalculating steps until all changes to the target cells and their parent cells are complete (col. 5, lines 65 to col. 7, lines 38, Harris); repeating the performing, remembering, recalculating, and first repeating steps until no

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changes are recorded (col. 5, lines 65 to col. 7, lines 38, Harris); and reporting the results of the foregoing steps to the user (col. 5, lines 65 to col. 7, lines 38, Harris). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include the steps for recalculating the changes of records as recited in claims 1, 3 and 4 in the system of Pouschine as taught by Harris. The motivation being to enable the system provided a recalculation program for maintaining an indication of which cells have been modified, examining each occupied cell in the spreadsheet only once in determining which cells have been affected by modification, creating an ordered list of cells requiring recalculation and visiting and recalculating only those cells which require recalculation (col. 2, lines 51-59, Harris).

Regarding claim 2, all the limitations of these claims have been noted in the rejection of claim 1 above. In addition, Pouschine/Harris discloses: wherein the Parent/Child table creating step is carried out as part of the performing one or more calculations step, so that in smaller, less complex sub-cubes, there is some advantage taken in the reduced number of times a particular cell is accessed (col. 5, lines 29-49, Pouschine).

4. Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bakalash et al. (U.S 6385604). Relational database management system having integrated non-relational multi-dimensional data store of aggregated data elements.

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Ravid et al. (U.S 6622137). System and method for business decision implementation in a billing environment using decision operation trees.

5. Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy Nguyen whose telephone number is 703-305-4698. The examiner can normally be reached on M-F: 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.


Cindy Nguyen
January 3, 2004


WAYNE AMSBURY
PRIMARY PATENT EXAMINER